

REMARKS

Claims 1-14 are pending. By this Amendment, Claims 1-2, 8 and 12-14 are canceled without prejudice or disclaimer and claims 3, 7 and 9-11 are amended. Support for the amendments to the claims can be found on at least page 14, line 22, to page 16, line 11, and in Figure 1 of the application as originally filed. As such, Applicants respectfully submit that no new matter is presented herein.

Form PTO-SB/08a

Applicants respectfully note the Form PTO-SB/08a attached to the Information Disclosure Statement dated August 15, 2006 and attached to the January 10, 2008 Office Action, has not been fully initialed by the Examiner indicating the Examiner has considered all the submitted references cited therein. Applicants respectfully request the Examiner consider the references and provide a copy of Form PTO-SB/08a with the Examiner's initials next to the cited references indicating the Examiner properly considered all the references. A copy of the PTO Form SB/08a is attached for the Examiner's convenience.

Entry of Response is Proper

Entry of this Amendment is proper under 37 C.F.R. §1.116 since the amendments: (a) place the application in condition for allowance for the reasons discussed herein; (b) do not raise any new issues requiring further search and/or consideration on the part of the Examiner since the features of the electromagnetic fuel injection valve previously claimed, e.g., a valve housing, have been amended for purpose of clarification; (c) satisfy a requirement of form asserted in the previous Office

Action; (d) do not present any additional claims without canceling a corresponding number of finally rejected claims; and (e) place the application in better form for appeal, should an appeal be necessary. The Amendment is necessary and was not earlier presented because it is made in response to objections raised in the Final Rejection. Entry of the Amendment is thus respectfully requested.

Rejections Under 35 U.S.C. §103

Claims 1-2 are rejected under 35 U.S.C. §103(a) as being unpatentable over Wallace et al. (US Patent No. 1,640,742, "Wallace") in view of Heathcote (U.S. Patent No. 4,833,352, "Heathcote") and Kazutomo et al. (Japanese Publication 2003-137609, "Kazutomo"). Claims 3-4 and 7-9 are rejected under 35 U.S.C. §103(a) as being unpatentable over Wallace in view of Heathcote. Claims 5-6 and 10-11 are rejected under 35 U.S.C. §103(a) as being unpatentable over Wallace in view of Heathcote and further in view of Kazutomo. To the extent that the rejections remain applicable to the claims as amended, Applicants respectfully traverse the rejections for at least the following reason(s).

Claims 1 and 2 have been canceled without prejudice or disclaimer. Claims 3 and 7 recite an electromagnetic fuel injection valve including, among other features, a valve housing formed by a magnetic cylinder body and a valve seat member connected to a front end of the magnetic cylinder body in a liquid-tight manner, the valve seat member having a valve seat at a front end thereof, a fuel injection hole being provided at the front end of the valve seat member, the magnetic cylinder body being made of magnetic metal and coaxially connected at a rear end thereof to a front end of a fixed core via a nonmagnetic cylinder body formed of nonmagnetic metal, a valve operating

part in which a valve body spring-biased in a direction to be seated in the valve seat is accommodated in the valve housing, a movable core being integrally formed on a rear end of a valve shaft which leads to the valve operating part, the movable core being opposed to the fixed core, and a coil assembly capable of exhibiting electromagnetic force for driving the valve body to a side to separate from the valve seat, the coil assembly being arranged around an outer periphery of the valve housing and the fixed core.

Wallace recites an electromagnetic motor that includes a piston 21 contained within a cylinder 20 and a magnetic winding 26 that is adapted to operate the magnetic piston 21 and is mounted on and surrounds a portion of the cylinder 20. A casing 28 made of any suitable magnetic material surrounds the winding 26. See Col. 1, lines 41-64.

Applicants respectfully submit that Wallace does not teach or suggest each and every feature of Claims 3 and 7. The Office Action asserts that Wallace “discloses an electromagnetic fuel injection valve (i.e. piston 21, Col. 1, Line 57, See Figure 1), comprising: a valve operating part (21) in which a valve body (21) spring-biased (via spring 34, Col. 1, Lines 78) in a direction to be seated in a valve seat (i.e. Seat member 45 and 30, See Col. 2, Lines 5-10) is accommodated in a valve housing (81, Col. 3, Line 17) having the valve seat (i.e. seat member 45 and 30) at a front end thereof. . .” (see Page 3, lines 3-8). Contrary to the assertion in the Office Action that the valve body (21) in Wallace is spring-biased in a direction to be seated in a valve seat, Col. 1, lines 105-108 of Wallace specifically teaches that the coil spring 34 “normally maintains the piston in the upper position as shown in Fig. 1.” See also Col. 2, lines 116 – 119. As

shown in the “normal upper position” in Fig. 1 of Wallace, the valve body 21 is not spring biased to be seated in a valve seat. Rather, the valve body 21 in Wallace is spring-biased to be unseated from the conical shaped end of the core 30.

Furthermore, Applicants disagree with the assertion that the “cover 81 that provides a dust and dirt proof guard for the circuit interrupter mechanism...” (see Col. 3, lines 6-10) corresponds to the valve housing of the present invention, as asserted by the Office Action. The dust cover 81 of Wallace does not include a valve seat member and a magnetic cylinder body, wherein the valve seat member has the valve seat integrally formed at a front end thereof as recited by Claims 3 and 7. Moreover, as can be seen in Figs. 1 and 2 of Wallace, the asserted valve seat combination (45 and 30) is not integrally formed at a front end of a valve seat member comprising part of the valve housing. Applicants respectfully note that a valve seat *in front of* cover 81, as asserted by the Office Action on page 23, does not correspond to a valve seat integrally formed at a front end of a valve seat member comprising part of the valve housing. Furthermore, as shown in Fig. 1 of Wallace, Wallace does not teach or suggest that the coil assembly 26 is arranged around an outer periphery of the valve housing 81, as recited by Claims 3 and 7.

The Office Action admits that Wallace does not disclose a two-layer resin molded part that includes a first resin molded layer and a second resin molded layer (see page 3, line 14, to page 4, line 2). Applicants respectfully disagree with the Office Action’s broad assertion that one skilled in the art would look to modify the cylinder 20 in Wallace to arrive at the detailed two-layer resin molded part that includes the various

features recited by Claims 3 and 7, simply because "the cylinder 20 may be formed of any non-magnetic material."

Applicants respectfully submit that Heathcote and Kazutomo, alone or by any combination, do not cure the deficiencies of Wallace. Heathcote discloses a stator assembly 10 in which a slidable magnetic core member 11 is coupled to a movable component 12 mounted in a housing 13. The Office Action asserts that Kazutomo "discloses a thermoplastic resin containing glass fibers." See p.5, ll. 1-2.

Applicants respectfully submit that Heathcote and Kazutomo are cited for teaching various other features and do not, alone or by any combination, teach or suggest an electromagnetic fuel injection valve including, among other features, a valve housing formed by a magnetic cylinder body and a valve seat member connected to a front end of the magnetic cylinder body in a liquid-tight manner, the valve seat member having a valve seat at a front end thereof, a fuel injection hole being provided at the front end of the valve seat member, the magnetic cylinder body being made of magnetic metal and coaxially connected at a rear end thereof to a front end of a fixed core via a nonmagnetic cylinder body formed of nonmagnetic metal, a valve operating part in which a valve body spring-biased in a direction to be seated in the valve seat is accommodated in the valve housing, a movable core being integrally formed on a rear end of a valve shaft which leads to the valve operating part, the movable core being opposed to the fixed core, and a coil assembly capable of exhibiting electromagnetic force for driving the valve body to a side to separate from the valve seat, the coil assembly being arranged around an outer periphery of the valve housing and the fixed core, as recited by Claims 3 and 7.

Moreover, the Office Action admits on page 4, lines 10-15, that Heathcote also does not disclose a two-layer resin molded part that includes a first resin molded layer and a second resin molded layer including the features as recited by Claims 3 and 7. The Office Action never explains why one of ordinary skill in the art would ever look to modify the single resin part of either Wallace and/or Heathcote to arrive at the two-layered resin molded part recited by Claims 3 and 7.

For at least the reason(s) stated above, the Applicants respectfully submit that Wallace, Heathcote, and Kazutomo, alone or by any combination, do not teach or suggest each and every one of the elements recited by Claims 3 and 7. As such, Applicants respectfully submit that one of ordinary skill in the art would not find it obvious to modify Wallace, Heathcote, and Kazutomo, alone or by any combination, to arrive at the features recited by Claims 3 and 7. Accordingly, Claims 3 and 7 should be deemed allowable over Wallace, Heathcote, and Kazutomo.

Claims 4-6 depend from Claim 3 and Claims 9-11 depend from Claim 7. Applicants respectfully submit that these dependent claims should be deemed allowable for at least the same reason(s) Claims 3 and 7 are allowable, as well as for the additional subject matter recited therein.

Withdrawal of the rejections is respectfully requested.

Conclusion

In view of the above, the Applicants respectfully request reconsideration of the application, withdrawal of the outstanding rejections, allowance of Claims 3-7 and 9-11, and the prompt issuance of a Notice of Allowability.

Should the Examiner believe anything further is desirable in order to place this application in better condition for allowance, the Examiner is requested to contact the undersigned at the telephone number listed below.

In the event this paper is not considered to be timely filed, the Applicants respectfully petition for an appropriate extension of time. Any fees for such an extension, together with any additional fees that may be due with respect to this paper, may be charged to counsel's Deposit Account No. 01-2300, **referencing docket number 107348-00596.**

Respectfully submitted,
ARENT FOX LLP



William D. Doyle
Attorney for Applicants
Registration No. 60,429

Customer No. 004372

ARENT FOX LLP

1050 Connecticut Avenue, N.W., Suite 400

Washington, D.C. 20036-5339

Tel: (202) 857-6000

Fax: (202) 638-4810

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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹Unique citation designation number. ²See attached Kinds of U.S. Patent Documents. ³Enter Office that issued the document, by the two-letter code. ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to place a check mark here if English language translation is attached. AB indicates that only an English language abstract is attached.